Homework 45H Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Similarity and Proportional Ratio Period:\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Failure to show all work and write in complete sentences will result in LaSalle!

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| 1. Find the ratio of a side length in ∆*ABC* to a side length in ∆*DEF*. Then simplify the ratio. | 1. The perimeter and the ratio of the length to the width of a rectangle are given. Find the length and width of the rectangle.   Perimeter: 50 in.  *l*:*w =* 3:2 |
| 1. You purchase a scale model of the Golden Gate Bridge, which is located near San Francisco, California. The model states that the scale is 1 inch: 50 feet. The actual length of the bridge is 8980 feet. What is the length of the model? The model is approximately 15 inches tall. What is the actual height of the bridge? | 4. Given Find *BC*  ,  *ED*  *AE*  *BC*  *AB*   |
| 5. Determine whether BD ll AE. | 6. Determine the length of the line segments.  BC =  FC =  GB=  CD= |
| 7. Find x. | 8. Find x. |
| 9. List all pairs of congruent angles for the polygons. Then write the ratios of the corresponding sides in a statement of proportionality.   1. Δ*STU* ~ Δ*CDE* 2. quadrilateral *CDEF* ~ quadrilateral *MNKL* | 10. Determine whether the polygons are similar. If they are, write a similarity statement and find the scale factor of Figure A to Figure B. |
| 11. In the diagram at the right, quadrilateral *BCDE* ~ quadrilateral *WXYZ*.     1. Find the scale factor of quadrilateral *BCDE* to quadrilateral *WXYZ*. 2. Find the scale factor of quadrilateral *WXYZ* to quadrilateral *BCDE*. 3. Find *XY*. 4. Find *m*∠ *C*. 5. Find the perimeter of quadrilateral *WXYZ*. | 12. Find x. |